

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions or listings of claims for this application.

Listing of Claims:

1. (Currently amended) An image sensor, comprising:
 - a plurality of pixels, each pixel having a photoreceptor therein, a follower transistor connected to said photoreceptor, a select transistor connected to said follower transistor, and a reset transistor which controls applying a reset level;
 - a first bias line providing power to at least a first of said transistors for a first pixel, and a second bias line providing power to at least a second of said transistors of said first pixel different than said first transistor of said first pixel, such that said first and said second transistors are separately powered by separate bias lines, wherein said first bias line further provides power to a said second transistor of a second pixel, and said second bias line further provides power to a said first transistor of a third pixel, and wherein a gate of said reset transistor of the first pixel is connected to a first reset/select line, and a gate of said select transistor of a different pixel is connected to said first reset/select line.
2. (Previously presented) An image sensor as in claim 1 wherein each at least first transistor is the follower transistor and each at least second transistor is the reset transistor.
3. (Original) An image sensor as in claim 1 wherein said photoreceptor is a photodiode.

4. (Canceled).

5. (Previously presented) An image sensor as in claim 1 wherein said sensor is an active pixel sensor, formed of transistors which are compatible with CMOS techniques.

6. (Previously presented) An image sensor as in claim 5 wherein each first transistor is a reset transistor and each second transistor is a follower transistor.

7. (Currently amended) An active pixel sensor, comprising:

a plurality of pixels formed of transistors which are compatible with CMOS techniques, each pixel associated with accepting a pixel of an image, and each pixel comprising:

a photoreceptor therein,

an in-pixel follower transistor connected to said photoreceptor,

an in pixel select transistor connected to said follower transistor,

and an in pixel reset transistor which controls applying a reset level;

a first bias line providing power to at least one of said transistors for a first pixel;
and

a second bias line providing power to another of said transistors different than said one of said transistors of said first pixel, and

a third bias line providing power to a third of said transistors different than said one or another of said transistors of said first pixel, such that said one, and said another, and said third transistors are separately powered by separate bias lines;

wherein said second bias line is connected commonly to a first plurality of follower transistors in a first row of said pixels and a second plurality of reset transistors in a second row of pixels different than said first row of pixels.

8. (Original) An image sensor as in claim 1 wherein said photoreceptor is a photogate, and further comprising a floating diffusion portion in the substrate connected to said follower transistor, and further comprising a transfer gate, coupled between said photogate and said floating diffusion, which is activated to allow charge in said photogate to dump into said floating diffusion.

9. (Original) An image sensor as in claim 8 further comprising a reset diffusion storing a reset level, and wherein said reset transistor is connected between said floating diffusion and said reset level.

10. (Canceled).

11. (Previously presented) A sensor as in claim 7 wherein said photoreceptor is connected between a reset transistor, and a follower transistor.

12. (Previously presented) A sensor as in claim 7 further comprising a dynamic mode read out transistor associated with at least one of said bias lines, and allowing said at least one bias line to be active for only a part of a frame period.

13. (Previously presented) A sensor as in claim 7 further comprising a connection which is configured such that when said connection is activated said pixels are referenced to a ground reference and when said connection is opened said pixels are floated.

14. (Currently amended) An active pixel sensor comprising:

an array of pixels, each pixel comprising a photoreceptor, and at least first, and second, and third transistors associated with said photoreceptor in said each pixel, each first transistor of each pixel providing a same pixel function and each second transistor of each pixel providing a same pixel function, said first transistor of a first pixel connected to receive power from a first power supply source over a first line, and said second transistor of said first pixel connected to receive power from a second power supply source over a second line separate from said first power supply line, and said third transistor of said first pixel connected to receive power from a third power supply source over a third line separate from said second power supply line, wherein said first transistor of said first pixel, and said second transistor of a second pixel, and said third transistor of a third pixel are connected to said first line.

15. (Previously presented) A sensor as in claim 14, wherein said first transistor and said second transistor of each pixel have drains which are not electrically connected.

16. (Previously presented) A sensor as in claim 14, further comprising a steady state current generator for providing a first mode connecting columns to ground and a second mode which provides floating columns.

Claims 17-21 (Canceled).

22. (Currently amended) An image sensor comprising:

a first pixel, said first pixel comprising a first photoreceptor, a first follower transistor having a gate connected to said first photoreceptor, a drain of said first follower transistor connected to a first line, and a first reset transistor, a drain of said first reset transistor connected to a second line; and

a second pixel, said second pixel comprising a second photoreceptor, a second follower transistor having a gate connected to said second photoreceptor, a drain of said second follower transistor connected to said second line, and a second reset transistor, a drain of said second reset transistor connected to a third line; and

a third pixel, said third pixel comprising a third photoreceptor, a third follower transistor having a gate connected to said third photoreceptor, a drain of said third follower transistor connected to said third line, and a third reset transistor, a drain of said third reset transistor connected to another line.

23. (Previously presented) The image sensor as in claim 22 wherein said first second and third lines are power supply lines.

24. (Previously presented) The image sensor as in claim 22 wherein said first second and third lines are connected to a same power supply.

25. (Previously presented) The image sensor as in claim 22 wherein said first pixel further comprises a first select transistor connected to said first follower transistor, said second pixel further comprises a second select transistor connected to said second follower transistor.

26. (Previously presented) The image sensor as in claim 25 wherein said second select transistor and said first reset transistor each have a gate connected to a first reset/select line.

27. (Previously presented) The image sensor as in claim 26 wherein a gate of said first select transistor is connected to a second reset/select line.

28. (Previously presented) The image sensor as in claim 27 wherein a gate of said second reset transistor is connected to a third reset/select line.